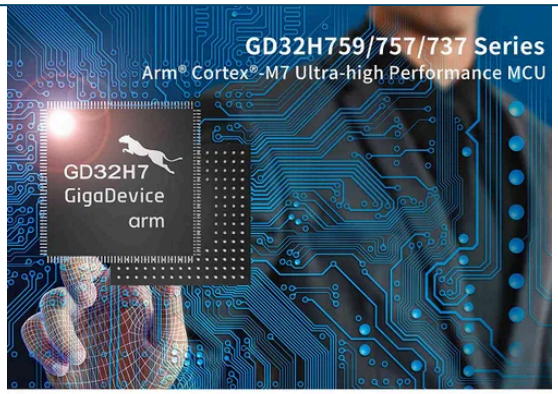
GD32H7 ARM® CORTEX®-M7 MCU PRODUCT FAMILY



First Arm® Cortex®-M7 core microcontroller (MCU) product family, the GD32H737/757/759 ultra-high performance MCU series.

The GD32H7 series offers superior processing power with power efficiency, rich connectivity, and comprehensive security functions. The GD32H7 MCU portfolio consists of 27-part numbers in three series, available in five package types: BGA176, LQFP176, LQFP144, BGA100, and LQFP100.

The GD32H7 MCU series adopts an Arm® Cortex®-M7 high-performance core based on Armv7E-M architecture, with up to 600MHz clock frequency. Its performance is further enhanced by the high bandwidth AXI + AHB bus and the six-stage pipeline architecture with branch prediction capability. The integrated advanced Digital Signal Processing (DSP) hardware accelerator and double-precision Floating-Point Unit (FPU), as well as the hardware Trigonometric Mathematic Unit (TMU) and Filter ACcelerator (FAC), significantly reduce the CPU loading and increase its processing efficiency. The GD32H7 MCU series can operate up to 1552 DMIPS at its highest frequency, and achieve an outstanding performance of 2888 points in CoreMark® benchmark tests, improving code execution efficiency by approximately 10% compared to similar products in the market running at the same frequency. The product's performance is more than 40% higher than that of Cortex®-M4 products.

For full product
info and datasheet
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